SCHALTBILD

GRUNDIG

MO-52

EINGANG A
INPUT A
1MΩ ∥ 27 pF

C 731
F
0,1 µ
630

S701

LEITERPLATTE MOA 01 40003-780.00
PRINTED CIRCUIT BOARD MOA 01

5mV/cm
10V/cm

EINGANG B
INPUT B
1MΩ ∥ 27 pF

C 732
F
0,1 µ
630

S702

LEITERPLATTE MOA 01 40003-780.00
PRINTED CIRCUIT BOARD MOA 01

5mV/cm
10V/cm

1 1
3 3
4 4
500 neg. log.
R 748
AMPL. A
8
R 747
100 CAL. A
7

2 2
5 5
6 6
500 neg. log.
R 750
AMPL. B
10
R 749
100 CAL. B
9

POSITION A

POSITION B

LEITERPLATTE MOY 01 40003-770.00
PRINTED CIRCUIT BOARD MOY 01

A±B A/B
A B
BETRIEBSART
MODE

BU 001
1 2 3 4 5 6 7

11 12 15 14 13

BU 002
1 2 3 4 5 6 7

CHOPP. CHOPP/ ALT.

ST 202
/2 /1

BU 210 BU 201 BU 202 BU 203 BU 204
1 2 3

LEITERPLATTE MOX 01 40003-720.00
PRINTED CIRCUIT BOARD MOX 01

BU 206
1 2 3
BEAM / RESET

BU 209
3 2 1
rt RED
SW BLACK
D 1001
LED
TRIGGERBEREITSCHAFT
TRIGGER READY

EINGANG / INPUT
X-EXT
MAIN TRIGGER
EXT
1MΩ ∥ 27 pF

LEVEL

1x AUTO NORM
X-EXT
TRIGGERMODUS

LIN LF HF
FILTER

B LINE
A EXT
TRIGGERQUELLE
TRIGGER SOURCE

BU 902
8 7 6

BU 903
1 2 3 4 5 6

BU 904
1 2 3

BU 211
1 2 3 4

BU 208
1 2 3

BU 205
1 2 3

BU 207
3 2 1

ST 303 ST 302 ST301
/4 /3 /2 /1 /3 /2 /1 /1 /2

1s/cm
0,1µs/cm
VARIABLE TIME
DLY TIME BASE

ST 304
4 /4
3 /3
2 /2
1 /1

BU 302
1 2 3

BU303

LEITERPLATTE MOX 03 40003-750.00
MOX 04 40003-740.00
MOX 05 40003-760.00
PRINTED CIRCUIT BOARD MOX 03, MOX 04, MOX 05

LEITERPLATTE MOX 02 40003-730.00
PRINTED CIRCUIT BOARD MOX 02

LEVEL

MAIN DLY'D
MAIN MIX'D
BETRIEBSART
MODE

A B EXT
TRIGGERQUELLE
TRIGGER SOURCE

MAIN LEVEL
TRIGGERMODUS

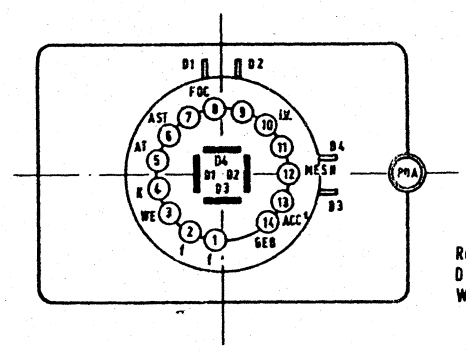
BU 901 3 2 1

EINGANG / INPUT
DLY'D TRIGGER
EXT
1MΩ ∥ 27 pF

R 1002
25 k
VARIABLE TIME
MAIN TIME BASE

BU 301
1 2 3

R 1003
5k ±3% LIN.
DLY TIME



Rö 1001
D 14-131 GH
W.W. D 14-131 GM

PRINTED IN GERMANY

26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6

MICROBOX

VERZÖGERUNGSLEITUNG
40003-013.00
DELAY LINE

Y-ENDSTUFE
Y-FINAL STAGE

LEITERPLATTE MOZ 01 40003-710.00
PRINTED CIRCUIT BOARD MOZ 01

C 1001 F
0,025 µ/1,6 kV
R 1001 1M
INTENS. MODULATION

C 1002 100 p/160 F
ORTHOGO-NALITÄT
STRAHLDREHUNG TRACE ROT.
Rö 1001 D14-131 GH W.W. D14-131 GM
A1 B4 B3 B1 B2
WE ACC1 FOC AST GEO MESH
PDA 10,6 kV

R1004 5,1k

X-POSITION x5 x1

BU 602 BU 601 BU 504 BU 503 BU 501 BU 502

X-ENDSTUFE
X-FINAL STAGE

ILLUM. FOCUS. INTENS.

rt RED
SW BLACK
D 1002 LED
BETRIEBSANZEIGE POWER ON

LA 1004 LA 1001 LA 1002 LA 1003 7V 1W (4 ×)
RASTERBELEUCHTUNG SCALE ILLUM

ST 001 ST 601 ST 202 ST 204 ST 203 ST 207 ST 305

BU 802 BU 805 BU 804 BU 806 BU 303 BU 803

+18V -15V +27V +85V -145V 50Hz

ST 501

LEITERPLATTE MOP 01 40003-700.00
PRINTED CIRCUIT BOARD MOP 01

1V CAL. AUSGANG CAL. OUTPUT

AUSGANG/OUTPUT MAIN ≥7,5 V

AUSGANG/OUTPUT DEL'D ≥2V

09089-704.01
TR 1001

BU 801 ST 1001

GREY gr
GREEN/BROWN gn/br
ge YELLOW
rt RED
SW BLACK

LEITERPLATTE MOP 04
40003-810.00
PRINTED CIRCUIT BOARD MOP 04

KABELTROMMEL
40003-040.00
CABEL DRUM

NETZ/MAINS 220V 50...400 Hz

Si 1001 630 mA T
EIN/ON S1001

LEITERPLATTE MOP 02 40003-790.00
PRINTED CIRCUIT BOARD MOP 02

LEITERPLATTE MOP 03 40003-800.00
PRINTED CIRCUIT BOARD MOP 03

ST 801 ST 802

ÄNDERUNGEN VORBEHALTEN!
ALTERATIONS RESERVED!

GÜLTIG AB GERÄT NR.: 1001
FOR SETS FROM SERIAL No.: 1001

GRUNDIG

Schaltplan

40003-906.01

Blätter 4
Blatt 1

Gerät MO 52 Art K VIII xt 61110

Original

LEITERPLATTE MOP 04
40003-810.00
PRINTED CIRCUIT BOARD MOP 04

TR 1001
09089-704.01

gn/br GREEN/BROWN
gr GREY

ST1001
ws /7 WHITE
ws /8 WHITE
bl /5 BLUE
bl /6 BLUE

BU 801/7 — C801 0,015µ 160 F — C802 0,015µ 160 F — 801/8
GL 801 B40 C3200/2200
C812 2200µ/40 — C818 0,68µ/63 F
-15V — M3

BU 801/5 — C803 0,015µ 160 F — C804 0,015µ 160 F — 801/6
GL 802 B40 C3200/2200
C813 1000µ/40 — C819 0,68µ/63 F

BU 303/2 BU 802/3 804/4 806/4 803/4 802/1 803/3 802/2 803/3 806/3 804/3 803/5 804/1 802/4 803/1 804/5 806/2 805/2 805/
+18V — M2 — C820 0,22µ/63 F — D803 1N4001 — D804 1N4001 — C822 10µ/25 — +15V — M1
C821 0,47µ/63 F — D805 1N4001 — C823 10µ/25 — -35V
DR 80 HFBV 09290-619 M4

LEITERPLATTE MOP 02
40003-790.00
PRINTED CIRCUIT BOARD MOP 02

gn /14 GREEN — 801/14 — C805 0,015µ 400 F — C806 0,015µ 400 F — 801/13 — gn /13 GREEN
B80 C1500/1000 GL 803
C814 470µ 100

R809 3k — R810 1k — R801 30k — R802 1k SPANNUNG VOLTAGE — R803 3k — R814 3k
IC 801 L 123 B1 (12, 11, 6, 5, 10, 4, 7, 13)
T 801 BC 307B — R812 1,5 — R817 680 — C824 1n/250 K
R813 510 — D806 ZPY 6,2 — R818 2k — C825 470p/250 K

rt /9 RED — 801/9 — D801 1N 4003 — C811 47µ/40
rt /10 RED — 801/10
rs /12 PINK — 801/12 — C807 0,015µ 400 F — C808 0,015µ 400 F — 801/11 — rs /11 PINK
GL 804 B250 C900/600
C815 47µ/160

R811 1k — R805 1,5k — R804 500 SPANNUNG VOLTAGE — R806 10k
IC 802 L 123 B1 (12, 11, 6, 2, 3, 10, 5, 4, 7, 13)
R815 2 — R819 1,8k — D807 ZPY 6,2 — R816 10k — C826 470p/250 K — R820 1,8k — C831 22µ 100
D802 BAX 13
R823 300 — R824 12k — R825 5,6k

vi /1 VIOLETT — 801/1 — C809 0,015µ 630 F
or /2 ORANGE — 801/2 — C810 F
vi /3 VIOLETT — 801/3 — 0,015µ/630
B500 C1000 GL 805
C816 33µ 250 — R807 2,2k — C827 15µ/250
C817 33µ 250 — C828 15µ 250 — R808 2,2k
M6 — M7 — M5
R822 22k — R821 22k — C830 1n/250 K
+145V — -145V — +85V

ge /15 YELLOW — 801/15
ge /4 YELLOW — 801/4
BU804/6 802/1 805/6 805/2 805/5 804/2 804/7 805/4

220V
rt RED
ge YELLOW
br BROWN — bl BLUE — S — Si — SW BLACK
Si 1001 630mAT
S 1001
220 V 50 - 400 Hz
KABELTROMMEL

-35V — ST 501/5 — M5 — BU 503/3 — M4 — BU 503/2 — BU 503/1 — Rö 1001 10,6 kV — ST 501/1
C513 0,1µ/250 F — C514 0,1µ/250 F — C515 0,1µ/100 F

L501 47µH 5% — Si501 200mA F — C503 100µ/63 — C505 220µ/40
TR 501 09290-577.01
D501 BA159 — M6 — C508 — C506 2,2µ/250 — 0,033µ 250 F
R508 56k — R509 9,1k — R510 9,1k
R515 250k MESH. — R516 100k GEOM. — R517 100k ASTIG.
R524 6,2k — R525 6,2k
C501 100p/160 F — C502 100p/160 F — C504 0,047µ 400 F
T501 BD410 — T502 BD410
HK 501 40003-047.00
D507 BA159 — D502 BA159 — D504 BA159 — D508 BA159 — D503 BA159 — D505 BA159
INTENS. R526 1M — INTENS. MIN. R518 250k — R527 100k — INTENS. MAX. R520 250k
R511 15k — R519 390k — R528 51k
C507 0,05µ/1,6kV — C509 0,05µ/1,6kV — C510 0,025µ 2,5kV — C511 0,025µ 2,5kV
R531 250k — R532 620k — FOCUS GROB/COARSE
R533 100k FOCUS — C516 0,01µ 400 F
R501 750 — L502 09290-578.01

T503 GD204 — R502 1k — R503 10k JLUM. — R504 1k
ST501/3 — ST501/4 — /10 — /11 — BU 501
R505 1,2k — R506 250 — R507 180 — D506 ZPD5,6 5% — T504 BSX 20 — R512 1,6k — R513 10k — R514 1k
+18V — R521 1,8k — R522 1k
R523 1k — R529 2,5k ORTHOGONALITÄT — R530 2,5k STRAHLDREHUNG TRACE ROT. — T505 BC 238 C — T506 BC 238 C
BU502 /1 /2 /3 — ST501/2 — BU501 /9 /12 — BU 501 /1 /2 /3 /4 /5 /6
R536 220k — R534 240k — R535 270k — R537 270k — R538 270k
BU 501 /7 /8
1

LEITERPLATTE MOP 01
40003-700.00
PRINTED CIRCUIT BOARD MOP 01

LEITERPLATTE MOP 03
40003-800.00
PRINTED CIRCUIT BOARD MOP 03

806/2 805/3 806/5
804/5 805/2 806/1

DR 801
HFBV
09290-
619.01

M1
M4
-35V

ST801/2
ST801/4
ST801/3
ST801/1
ST801/5
ST802/7
ST801/8
ST801/7

IC 820
µA 7818
IC 822
L 131
IC 821
µA 7818
IC 823
µA 7815

C 829
+
22µ/63
R817
680

ST802/6
ST802/5
ST802/4
ST802/1
ST802/3
ST802/2
ST802/9
ST801/6
ST802/8

T 820
GD 204
T 821
2N 4347
T 822
BD137-10

R823
300
R824
12k
R825
5,6k

805/4
802/5 805/1

BU 901 /1 /3 /2
R906
24k
R905
16k
T 901
BC 237 B

TIME CAL
R901
10k
D 901
BAX 13
R902
10k
R907
22k
TIME CAL
R903
10k
TIME CAL
R904
6,8k

C 901
F
10µ/63
C 902
F
2,2µ/63
C 903
F
0,22µ/63
C 904
F
0,15µ/100
C 905
F
4700p
100
C 906
F
1000p/160

R908
4,32M 1%
R909
2,21M 1%
R910
887k 1%
R911
3,01M 1%
R912
1,5M 1%
R913
604k 1%
R914
301k 1%
R918
56
T 902
BSX 20
R915
150k 1%
R916
60,4k 1%
R917
30,1k 1%
T 903
BC 307B

+85V

EBENE
CONTACT PLATE : 1 2 3 4 5

BU 903 /6 /5 /3 /2 /4 /1

---

(5) 1V 0V — 1µs
BETRIEBSART A/B CHOPPED
AUTO OHNE SIGNAL
MODE A/B CHOPP
AUTO WITHOUT SIGNAL

(11) 0V 1V — 2µs
AUTO, 1µs/cm
MIT 1MHz GETRIGGERT
AUTO, 1µs/cm
WITH 1MHz TRIGGERED

(17a) 0V 2V (17b) 0V — 2ms
MESSBEDINGUNG
UNTER (15)
MEASURING CONDI

(6a) 50mV [AC] (6b) — 50µs
5kHz SINUS, 500mV
AM KANAL A BZW. B
STELLUNG 0,1V/cm
GETRIGGERT VON A BZW. B
5kHz SINUS, 500mV
AT CANAL A RESP B
POSITION 0,1V/cm
TRIGGERT BY A RESP B

(12a) 0V 1V (12b) 0V — 2µs
AUTO, 1µs/cm
OHNE SIGNAL
AUTO, 1µs/cm
WITHOUT SIGNAL

(18) 1V 0V — 2ms
MESSBEDINGUNG
UNTER (15)
AUSSER : DLY'D
MEASURING CONDI
DLY'D IN MIX'D

(1a) 0V 2V (1b) 0V — 50µs
BETRIEBSART A/B ALT.
AUTO OHNE SIGNAL
MODE A/B ALT.
AUTO WITHOUT SIGNAL

(7) 1V 0V — 50µs/cm
5kHz SINUS, 500mV
AM KANAL A BZW. B
STELLUNG 0,1V/cm
GETRIGGERT VON A BZW. B
FILTER LIN
START BY LEVEL
5kHz SINUS, 500mV
AT CANAL A RESP B
POSITION 0,1V/cm
TRIGGERT BY A RESP B
FILTER LIN
START BY LEVEL

(13a) 1V 0V (13b) 0V — 2µs
AUTO, 1µs/cm
OHNE SIGNAL
AUTO, 1µs/cm
WITHOUT SIGNAL

(19) 20V 0V — 0,5ms
BETRIEBSART A
AUTO OHNE SIG
AUTO WITHOUT SIG
MAIN
START BY MAIN
MAIN TIME BASE
DLY'D TIME BAS
DLY TIME MULT

(2) 0,5V 0V — 1µs
BETRIEBSART A/B CHOPPED
AUTO OHNE SIGNAL
MODE A/B CHOPP
AUTO WITHOUT SIGNAL

(8) 2V 0V — 0,2µs
1MHz SINUS AM Y-EINGANG
AUTO
START BY LEVEL
GETRIGGERT, LEVEL-EINSTELLER MITTE
1MHz SINUS AT Y-INPUT
AUTO
START BY LEVEL
TRIGGERED, LEVEL-POTENTIOMETER CENTERED

(14) 1V 0V — 0,1ms
AUTO MIT 1MHz
SIGNAL GETRIGGERT
AUTO WITH 1MHz
SIGNAL TRIGGERED

(20) 20V 0V — 0,5ms
BETRIEBSARTEN
UNTER (19)
AUSSER MAIN
MODE SEE (19)
MAIN IN MAIN

(3) 1V 0V — 20µs
BETRIEBSART A/B ALT.
AUTO OHNE SIGNAL
MODE A/B ALT
AUTO WITHOUT SIGNAL

(9) 100mV [AC] — 0,2µs
1MHz SINUS AM Y-EINGANG
AUTO
START BY LEVEL
LEVEL-EINSTELLER CA. MITTE
1MHz SINUS AT Y-INPUT
AUTO
START BY LEVEL
LEVEL-POTENTIOMETER CENTERED

(15a) 0V 1V (15b) 0V — 2ms
AUTO
DLY'D
START BY MAIN
MAIN TIME BASE 1ms/cm
DLY'D TIME BASE 0,2ms/cm

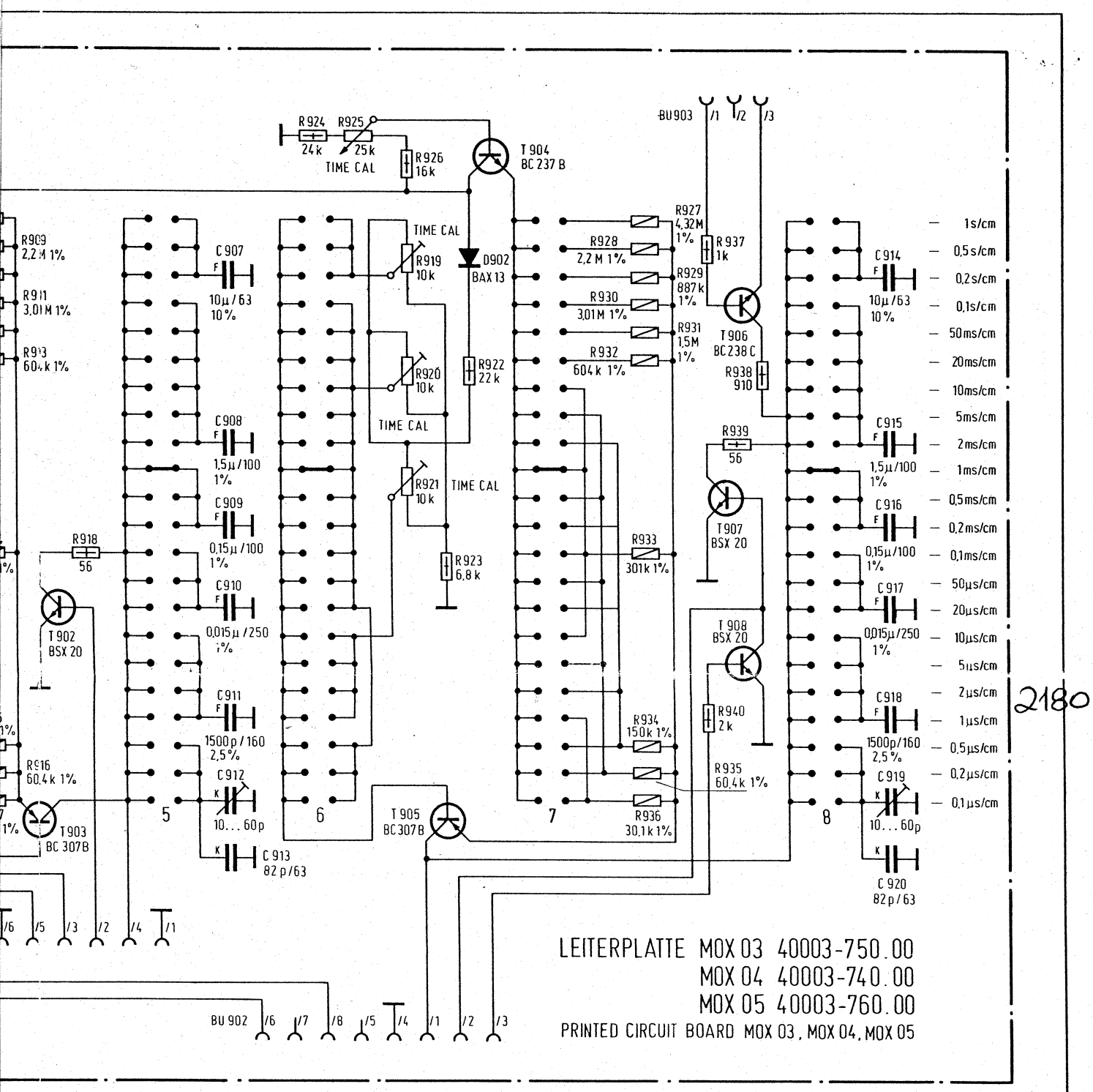
(21) 20V 0V — 0,5ms
BETRIEBSARTEN
UNTER (19)
AUSSER MAIN
MODE SEE (19)
MAIN IN DLY'D

(4a) 2V 0V (4b) 0V — 2µs
BETRIEBSART A/B CHOPPED
AUTO OHNE SIGNAL
MODE A/B CHOPP
AUTO WITHOUT SIGNAL

(10) 0V 1V — 2µs
AUTO, 1µs/cm
OHNE SIGNAL
AUTO, 1µs/cm
WITHOUT SIGNAL

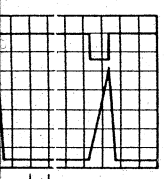
(16a) 0V 0V 1V (16b) — 2ms
MESSBEDINGUNGEN WIE
UNTER (15)
MEASURING CONDITIONS SEE (15)

(22) 20V 0V — 0,5ms
BETRIEBSARTE
UNTER (19)
AUSSER MAIN
MODE SEE (19)
MAIN IN MIX'D



2180

LEITERPLATTE MOX 03 40003-750.00
MOX 04 40003-740.00
MOX 05 40003-760.00
PRINTED CIRCUIT BOARD MOX 03, MOX 04, MOX 05



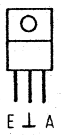
MESSBEDINGUNGEN WIE UNTER (15)
MEASURING CONDITIONS SEE (15)

2 ms

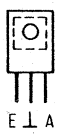
MESSBEDINGUNGEN WIE UNTER (15)
AUSSER : DLY'D IN MIX'D
MEASURING CONDITIONS SEE (15)
DLY'D IN MIX'D

2 ms

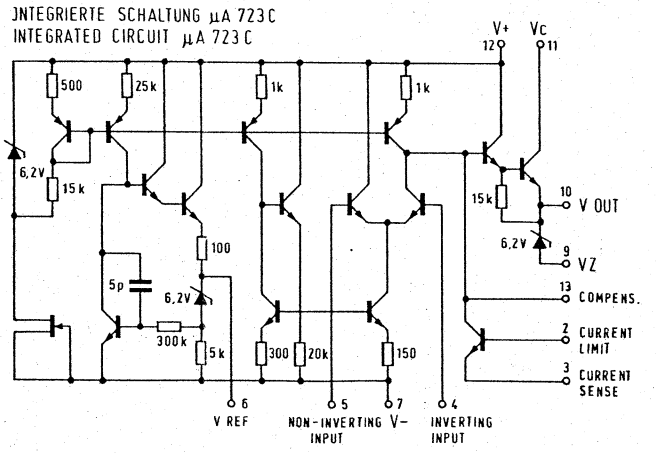
µA 7815
µA 7818

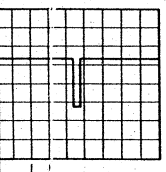


L 131



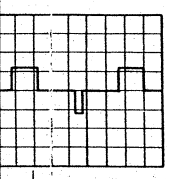
INTEGRIERTE SCHALTUNG µA 723C
INTEGRATED CIRCUIT µA 723C





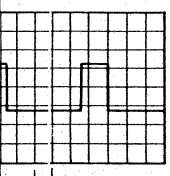
BETRIEBSART A MODE A
AUTO OHNE SIGNAL
AUTO WITHOUT SIGNAL
MAIN
START BY MAIN
MAIN TIME BASE 0,2 ms/cm
DLY'D TIME BASE 50µs/cm
DLY TIME MULTIPL. STELLUNG 5

0,5 ms



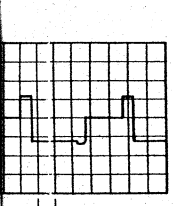
BETRIEBSARTEN WIE UNTER (19)
AUSSER MAIN IN MAIN
MODE SEE (19)
MAIN IN MAIN

0,5 ms



BETRIEBSARTEN WIE UNTER (19)
AUSSER MAIN IN DLY'D
MODE SEE (19)
MAIN IN DLY'D

0,5 ms



BETRIEBSARTEN WIE UNTER (19)
AUSSER MAIN IN MIX'D
MODE SEE (19)
MAIN IN MIX'D

0,5 ms

GLEICHSPANNUNGS MESSUNGEN:

GLEICHSPANNUNGEN MIT GRUNDIG UNIVERSALVOLTMETER UV 30 (Ri = 30 MΩ) GEGEN MASSE GEMESSEN.

DIRECT VOLTAGE MEASUREMENTS:

DC VOLTAGES MEASURED TO CHASSIS WITH GRUNDIG UNIVERSAL VOLTMETER UV 30 (Ri = 30 MΩ)

MESSBEDINGUNGEN : MEASURING CONDITIONS:

1.) S 201 STELLUNG / IN POSITION NORM
2.) S 202 STELLUNG / IN POSITION A
3.) S 301 STELLUNG / IN POSITION MAIN
4.) S 302 STELLUNG / IN POSITION A
5.) S 303 STELLUNG / IN POSITION START BY MAIN
6.) R 221 / R 343 LEVEL-EINSTELLER CA. MITTELSTELLUNG / LEVEL IN CENTER POSITION
7.) DELAY TIME MULTIPL. STELLUNG / IN POSITION 5,0

ÄNDERUNGEN VORBEHALTEN !
ALTERATIONS RESERVED !

IND.02 GÜLTIG AB GERÄT NR.: 1191
GÜLTIG AB GERÄT NR.: 1001
FOR SETS FROM SERIAL No.: 1001

Original

Stück-Nr. off	Teilebezeichnung - Title	Teil-Nr Part-No.	Sach Nr. - Ref. No		
GRUNDIG - Prüfungspunkt: Inspect. Itm:					
Fertg.-Techn. angen.					
Oberfläche Surface	02		Änderung lt. Ä. P. 09176 1096	23.7.76	Auer
	01		Änderung lt. Ä. P. 09176 1055	29.3.76	
Werkstoff: / Material:	Ind.	Ind. kommt von	Änderung - Modification	Tag	Name
	Nicht tolerierte Maße nach Abmaßtabelle 9665-100		Alle Rechte, vorbehaltlich Notstandsmäßiger Weitergewährung, insbesondere Nachbildung oder jeweiliger Mitteilungsfall des jeweiligen Eigentümers wird durch uns strafrechtlich verfolgt!		
	1975	Tag	Name	Ersatz für:	Ind.
Maßst.: Scale:	Gez.	20.6.		Sach-Nr	Blätter 4
Paßmaße: Fit:	Kontrolliert Copy	28.9	Auer	40003-906.01	Blatt 4
		12.9.60			
	Teilebezng.	Schaltplan			Arbeitspause Copy-No.
GRUNDIG	Title:				

2180

S 703

09290-511.00
L 701

R708 114 1%
R701 1k
C701 0,5...3p
R705 500
C708 3...9p
R702 806 1%
C709 3,5...13p
R703 287 1%
R704 1k
C702 1...6p

10 V/cm
5 V/cm
2 V/cm
1 V/cm
0,5 V/cm
0,2 V/cm
0,1 V/cm
50 mV/cm
20 mV/cm
10 mV/cm
5 mV/cm

R731 100
R735 1M 1%
C733 0,2...2,4p
R737 2k 1%
C735 360p/160
R739 30
C703 4...20p
R706 990k 1%
C706 0,5...3p
R709 10,1k 1%
C710 150p 400
R740 30
C704 4...20p
R707 900k 1%
C707 2...6p
R710 111k 1%
C711 15p 63
C705 4...20p
R741 100
R742 51
R747 100 CAL.A
R748 AMPL.A 500 neg. log

LEITERPLATTE MOA 01 40003-780.00
PRINTED CIRCUIT BOARD MOA 01

EINGANG A INPUT A
1 MΩ ‖ 27 pF
C731 0,1µ 630
R732 30
S 701

ABSCHWÄCHER A
ATTENUATOR A

40003-012.00

S 704

09290-511.00
L 702

R708 114 1%
R701 1k
C701 0,5...3p
R705 500
C708 3...9p
R702 806 1%
C709 3,5...13p
R703 287 1%
R704 1k
C702 1...6p

10 V/cm
5 V/cm
2 V/cm
1 V/cm
0,5 V/cm
0,2 V/cm
0,1 V/cm
50 mV/cm
20 mV/cm
10 mV/cm
5 mV/cm

R733 100
R736 1M 1%
C734 0,2...2,4p
R738 2k 1%
C736 360p/160
R743 30
C703 4...20p
R706 990k 1%
C706 0,5...3p
R709 10,1k 1%
C710 150p 400
R744 30
C704 4...20p
R707 900k 1%
C707 2...6p
R710 111k 1%
C711 15p 63
C705 4...20p
R745 100
R746 51
R749 100 CAL.B
R750 AMPL.B 500 neg. log

LEITERPLATTE MOA 01 40003-780.00
PRINTED CIRCUIT BOARD MOA 01

EINGANG B INPUT B
1 MΩ ‖ 27 pF
C732 0,1µ 630
R734 30
S 702

ABSCHWÄCHER B
ATTENUATOR B

GEZEICHNETE STELLUNG: 10 V/cm
AT POSITION : 10 V/cm

VORVERSTÄRKER KANAL A
PREAMPLIFIER A

C5 100µ/25
M6
M5
M2
D1 TD 68
T1 TJ 5003
R9 620
R10 50
R11 620
R1 20k
R5 39
C3 3300p/400
R2 1M 1%
R7 56
D2 TD 68
C14 0,1µ/100
C8 100µ/

VORVERSTÄRKER KANAL B
PREAMPLIFIER B

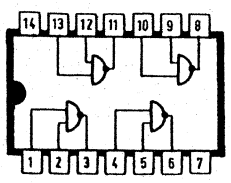
C6 100µ/25
M3
M4
M1
R154 24
D3 TD 68
T2 TJ 5003
R12 620
R13 50
R14 620
R3 20k
R6 39
C4 3300p/400
R4 1M 1%
R8 56
D4 TD 68
C15 0,1µ/100
C10 100µ

T3...T18 SELEKTIERT NACH BV 09654-354.25 AUS GRUNDTYP BF 357 NEUE BEZEICHNUNG: S 8557
T23
T24
T27
T28

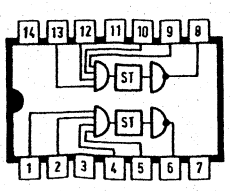
T3/T4
T5/T6
T7/T8
T9/T10
T11/T12
T13/T14
S 8557 GEPAART NACH BV 09654-355.25

LEITERPLATTE MOY 01 400
PRINTED CIRCUIT BOARD MOY 01

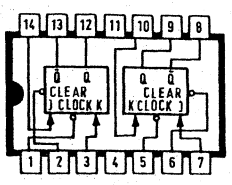
ANSICHT VON OBEN TOP VIEW



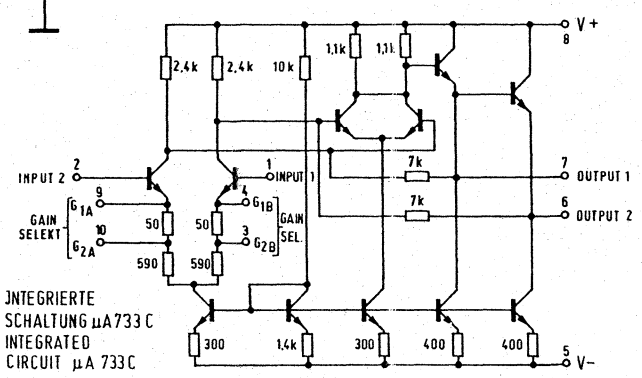
SN 7400 N



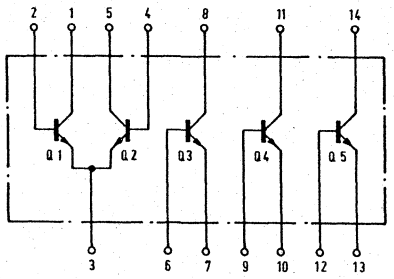
SN 7413 N



SN 7473 N



JNTEGRIERTE SCHALTUNG µA733C
INTEGRATED CIRCUIT µA 733C



JNTEGRIERTE SCHALTUNG CA 3046
INTEGRATED CIRCUIT CA 3046

ELEKTRONISCHER SCHALTER
ELECTRONIC SWITCH

VERZÖGERUNGSLEITUNG
DELAY LINE

POS. A

POSITION A

POSITION B

SYM.

O-COR.

COMP.

+18 V

+25 V

-15 V

6,5 V

11,5 V

18 V

9 V

S 101

S 001

BU 001

BU 002

REL 1

DL 1

ST 001/1

ST 601/2

ST 601/6

ST 601/3

25 V

18 V

-15 V

NACH
354.25
VP BF 357
ZEICHNUNG: S 8557

AART
654-355.25

MOY 01 40003-770.00
ARD MOY 01

TRANSISTORANSCHLÜSSE
TRANSISTOR CONNECTIONS

E C B
BD 135-10
BD 136-10
BD 137-10
BD 410
BF 457

C B E
BC 307 B
BC 308 C
BC 237 B
BC 238 B
BC 238 C
BF 357
BC 309

G S D
BF 245 A
BF 245 B

BF324

C B E
BF 178
BC 140-16
2N 3866
2N 2219 A

BSX 20

TJ 5003

BFX 89

B C E
GD 204

2N 4347

1/8 W
1/4 W
1/3 W
1/2 W
1 W
2 W
4 W

DRAHTWIDERSTAND 1W
WIRE RESISTOR 1W
4 W

KERAMIK
CERAMIC
KUNSTFOLIE
PLASTIC FOIL
ELEKTROLYT
ELECTROLYTIC

PRINTED IN GERMANY

Y-ENDVERSTÄRKER
VERTICAL FINAL AMPLIFIER

X-ENDVERSTÄRKER
HOR. FINAL AMPLIFIER

VERZÖGERUNGSLEITUNG
DELAY LINE

DL 1

Y-PLATTENSPANNUNG
PLATE VOLTAGE

X-PLATTENSPANNUNG
PLATE VOLTAGE

ARBEITSPUNKT
OPERATING POINT

POSITION SYM.

55V
85V
5V
4,5V
ca. 25V
-145V
+145V
-35V

ST 601/1
ST 601/2
ST 601/3
ST 601/4
ST 601/5
ST 601/6

BU 602
BU 601/1
BU 601/2
BU 601/3

REL 601

T 610 BFX 89
T 611 BFX 89
T 612 2N 2219A
T 613 2N 2219A
T 614 2N 2219A
T 615 2N 2219A
T 616 BF 357
T 617 2N 3866
T 618 2N 3866
T 601 BC 307 B
T 602 BC 307 B
T 603 BC 307 B
T 604 BF 457
T 605 2N 2219
T 606 BC 237 B
T 607 BC 237 B
T 608 BF 178
T 609 BF 178

D 601 ZPD 6,8
D 602 ZPD 6,8
09654-356.03
09654-356.03

L 603 BV 09290-569.01
L 605 BV 09290-570.01
L 606 BV 09290-570.01
BV 09290-569.01

L 601 2,7µH 5%
L 602 5,1µH 5%

R609 36k
R610 39k
R611 100
R612 130
R613 5k
R614 5k
R615 2k
R616 2k
R617 100
R618 13k
R619 100
R620 100
R621 2,2k
R622 100
R623 100
R624 2,2k
R625 1,2k
R626 1,1k
R627 7,5k
R628 100
R629 820
R630 1k
R631 820
R632 100
R633 7,5k
R634 2k
R635 2k
R636 36
R637 300
R638 250
R639 300
R640 36
R641 820
R642 430
R643 270
R644 300
R645 430
R646 820
R647 15
R648 100
R649 100
R650 100
R652 160
R653 160
R654 100
R655 100
R656 160
R657 160
R658 4,3k
R659 180
R660 180
R661 390
R662 500
R663 12k
R664 15k
R665 5k
R666 25k
R667 470
R668 750
R669 25k
R670 25k
R671 750
R672 470
R673 150
R674 25k
R601 10k
R602 500
R603 300
R604 2k
R605 2k
R606 10k
R607 3,9k
R608 100

C 601 0,1u/100
C 602 0,01µ 100
C 603 3,3p/63
C 604 0,1µ/100
C 605 75p 63
C 606 10...40p LINEAR
C 607 0,1µ/100
C 608 4,7µ/100
C 609 0,1µ/100
C 610 6...25p
C 611 6800p 100
C 612 47µ 16
C 613 680p 160
C 614 47µ 16
C 615 0,33µ 63
C 616 47µ/63
C 617 0,1µ/100

AMPL.
x5
x1

M1 M2 M3 M4 M5 M6 M7

Original

LEITERPLATTE MOZ 01 40003-710.00
PRINTED CIRCUIT BOARD MOZ 01

ÄNDERUNGEN VORBEHALTEN!
ALTERATIONS RESERVED!

JNO. 02 GÜLTIG AB GERÄT NR.: 1191
GÜLTIG AB GERÄT NR.: 1001
FOR SETS FROM SERIAL No.: 1001

KERAMIK
CERAMIC
KUNSTFOLIE
PLASTIC FOIL
ELEKTROLYT
ELECTROLYTIC

B A/B A±B A
KONTAKTSTELLE
CONTACT

BETRIEBSART MODE
S 001 40002-030.00

02		Änderng lt. Ä.P. 091761096	16.7.76	
01		Änderung lt. Ä.P. 091761055	29.3.76	
Ind.	Ind. kennt mir	Änderung - Modification	Tag	Name

GRUNDIG - Prüfungspunkt: Inspect. Itm.:
Fertg.-Techn. angen.
Oberfläche Surface
Werkstoff: / Material:
Nicht tolerierte Maße nach Abmaßtabelle 9665-100
Maßst.: Scale: Paßmaße: Fit.
1975 Tag Name
Ersatz für:
Ges. 2.5.
Konstr. Gepr. 28.8. 12.9.80
Sach-Nr. 40003-906.01
Blätter 4
Blatt 2
Ind. 02
Teilebezng. Schaltplan
Title:
Arbeitspause Copy-No.
GRUNDIG

EINGANG/INPUT
X-EXT
MAIN TRIGGER
EXT
1MΩ II 27pF

C 202 0,1µ/100
D 202 TD 68
R 323 33
R 205 20k
R 212 39
T 206 BF 245 A
C 203 3300p/400
C 204 1,2...10p
R 206 1M 1%
D 203 TD 68
C 205 0,1µ/100
R 222 5,6k
R 227 2,4k
R 226 200
T 209 BF 357
D 204 ZPD 4,7
D 205 BAX 13
R 233 15k
+15V
-15V

S 203 S 203 S 202
LIN LF HF
C 221 0,047µ/100
C 222 4,7µ/16
C 226 0,1µ/100
C 229 47µ/16
C 230 0,1µ/100
A B LINE EXT
C 237 47µ/16
X-EXT 1x AUTO NORM
S 201

R 257 56
R 281 56
R 201 9,1k
R 202 5,6k
M1

+15V
R 236 100
R 241 4,7
C 242 39
C 218 0,1µ/100
C 223 100u/16
R 248 270
R 258 240
MC 1733 CG IC 204
R 321 56
R 274 270
R 275 240
MC 1733 CG IC 206
R 322 56

+18V
T 203 BC 140-16
R 326 270
R 327 2k
R 228 430
R 217 12k
R 207 10k
R 213 5,6k
BU 206/1
BU 206/3
BU 206/2
BEAM/RESET
S 201

R 243 36k
R 244 56
R 250 20k
R 260 24k
R 259 56
R 265 36k
M 11 M 12
C 219 47µ/3
C 224 0,1µ/100
R 324 10k
C 227 0,1µ/100
C 228 47µ/3
ARBEITSPUNKT OPERATING POINT
R 271 36k
R 277 56
R 278 24k
R 279 20k
R 282 56
R 286 36k
M 13 M 14
C 231 47µ/3
C 232 0,1µ/100
R 325 10k
C 233 0,1µ/100
C 234 47µ/3
ARBEITSPUNKT OPERATING POINT

LEITERPLATTE MOX 01 40003-720.00
PRINTED CIRCUIT BOARD MOX 01

ST 202/2 /1
BU 204 /1 /2 /3
BU 203 /1 /2 /3
BU 205 /1 /2 /3
BU 202 /1 /2 /3
BU 201 /1 /2 /3
BU205
ST 203/6

ST 301/2
ST 301/1
ST 302/3
S 302

C 272 0,1µ 100
C 273 47µ 16
+5V
R 431 910
C 274 0,1µ/100
R 426 1k
C 275 18p/63
R 433 1,5k
M 8
T 267 BC 238 B
R 428 5,1k
T 268 BC 238 B
R 434 4,3k
R 422 200
R 427 3k
-5V
R 438 430
M 10
T 269 BC 309
C 278 47µ 16
R 435 43
R 440 12k
R 441 470
ARBEITSPUNKT OPERATING POINT
R 439 5k

C 270 0,1µ 100
C 271 3300p/400
EINGANG/INPUT
DLY'D TRIGGER
EXT
1MΩ II 27pF
R 457 33
R 415 20k
R 416 1M 1%
C 269 4...20p
D 240 TD 68
R 417 39
T 264 BF 245 A
R 421 1,1k
R 419 200
T 265 BF 357
R 420 2,4k
D 241 TD 68
R 453 200
R 418 5,6k
C 282 0,1µ/100
T 272 BF 357
R 455 2,7k
R 454 1,5k
R 456 750

R 423 75
C 276 0,1µ/100
R 429 1k
CA 3046
IC 224
R 425 100
R 424 5,1k
R 436 2,4k
R 443 15k
R 442 100
R 444 2k
C 279 0,1µ/100
C 280 0,1µ/100
C 281 4,7µ/16
D 244 BAX 13
D 245 BAX 13
R 430 3,9k
R 437 3k
R 432 5,6k
R 453 12k
C 277 0,1µ/100

T 270 BC 238 C
R 445 1k
R 447 3,9k
R 448 2,5k CAL. DLY TIME MULTI
R 449 3,9k
R 450 6,2k
T 271 BC 238 C
R 446 1k
R 451 2,5k CAL. DLY TIME MULTI
R 452 6,2k
R 459 3,9k
R 331 5,6k

LEITERPLATTE MOX 02 40003-730.00
PRINTED CIRCUIT BOARD MOX 02

BU 301/2 /3 /1
ST 305/1 /2 /3 /4 /5
+18V +15V -15V

S201 X-EXT 1x AUTO NORM C214 F 0,1µ/100
+18V +15V -15V
R215 2,7k R214 120 T204 BC140-16 C208 47µ/16
IC201 SN7400N
D208 BAX13 R261 62k C220 100µ/16 R262 3,9k T216 BF357 R272 9,1 +15V
R229 9,1 T211 BC238B R266 4,3k M7
R208 9,1 C206 F 0,1µ/100 D201 ZPD5,6 R237 1,5k C211 F 0,68µ/63 C245 47µ/20
R230 2,7k R251 20k D210 ZPD3,3
R238 9,1 +15V
C209 3,9p 63 C212 F 0,1µ/100 R234 270 R252 16k R253 33
C213 K 10p/63 T212 BF357 M6 M4 M5
C201 F 0,1µ/100 R209 180 R216 4,3k R223 5,1k R231 68
R201 9,1k R203 240 R210 240 R218 360 T205 BF357 T207 BF357
ZPD5,6 D206 T210 BF357 C216 F 0,1µ 100 R245 200 T213 BF357
R267 200 T214 BF357 D209 ZPD3,3 T217 BF357 12a
R263 5,1k T215 BF357 R264 2,7k R268 470 R269 10k
C235 K 33p 63 ZEITLINIEN-LÄNGE SWEEP LENGTH
R224 1k R225 2,7k R232 470 R235 6,8k C215 F 0,68µ 63 R239 200 R240 820 R246 18k R247 4,7k R255 5,6k R256 2,7k
R254 5k STABILITÄT 13a
T201 BF357 T202 BF357 T208 BF357 R202 5,6k R204 30 R211 30 C207 F 100p/160 R219 1,2k LEVEL R221 5k R220 1,8k
R328 5,1k IC202 SN7400N D207 BAX13 IC203 SN7400N R329 5,1k IC205 SN7413N D211 BAX13 R270 56
C210 0,68µ/63 C217 F 0,1µ/100 S201 X-EXT 1x AUTO NORM
13b 2b
BU208/1 BU208/3 BU208/2 BU207 /3 /2 /1 5 4
+5V R289 2k R296 2k R290 2k T221 BSX20 T218 BSX20 R287 10k R291 56
T224 BF357 R304 100 R303 2k R308 1,5k R309 300 R310 300 R305 1k R300 12k R301 2,5k R306 100 R307 620 R302 470
C339 F 0,1µ/100 C238 F 0,1µ/100
T219 BC238B T222 BC238B R292 300 R293 300 R297 560 R298 510 C236 F 470p/160 R284 1k R285 2k R288 1,2k R294 7,5k T223 BF245A 9654-202.97 R295 56 R299 5,6k T220 BC238B
ARBEITSPUNKT-OPERATING POI
ST203/6 ST201/1 ST201/4 ST201/2 ST201/5 ST201/6 ST201/3 ST203 /1 /2 /3 BU209 /3 /2 /1 +85V -15V

M3 +18V +15V R338 180 T243 BC140-16 C253 47µ/10 R339 2,7k C250 F 0,1µ/100 D230 ZPD5,6 R334 9,1 C250 F 0,1µ 100
START BY MAIN LEVEL S303 +5V R355 1k T249 BC238B
R362 20k R351 9,1 +15V R359 16k R363 33 T250 BF357 R357 200 R360 5k STABILITÄT
C254 F 0,68µ/63 -2,4V T248 BF357 C256 K 10p 63 ZPD5,6 D231 C257 F 0,1µ 100 R353 200 R354 820 R356 18k R352 6,8k C258 F 0,68µ/63 -15V
T244 BF357 T245 BF357 T246 BF357 T247 BF357 R335 180 R344 4,3k R346 5,1k R343 68 R350 270 R340 360 R345 2k R347 1k R348 2,7k R460 470 C252 F 100p/160 R343 5k LEVEL R342 1,8k R341 1,2k R330 9,1k R332 240 R336 240 R331 5,6k R333 30 R337 30 C251 F 0,1µ 100
R365 3,9k T251 BF357 R375 9,1 +15V R371 4,3k R360 2k R374 470 D233 ZPD3,3 -2V R369 430 R376 240 T252 BF357 D232 ZPD3,3 T254 BF357 R366 5,1k T253 BF357 R367 2,7k R370 470 R372 10k R377 1k R373 1k
ARBEITSPUNKT-AUFHELLUNG OPERATING POINT-UNBLANKING
T255 BC238B R382 56 C262 F 0,1µ/100 R383 300 C261 470p/100 R378 560 R379 1k R380 2k R381 1,2k R384 7,5k R385 56 9654-202.97 T257 BF245 T256 BC238B -15V
ZEITLINIENLÄNGE SWEEP LENGTH
D234 D235 D236 BAX13 BAX13 BAX13 D237 BAX13 C260 F 100p/160 C268 K 33p/63
IC222 SN7410N IC220 SN7400N IC221 SN7473N IC223 SN7413N C259 F 0,1µ/100 C255 F 680p/160
S301 MAIN MAIN DLY'D MIX'D ST304/3 ST303/1 ST302/2 ST303/4 ST304/4 ST304/2 ST304/1
+15V C264 F 0,1µ/100 BU303/4 /3 R399 1,5k R392 2k R393 100 T260 BF357 C263 F 0,1µ/100 R400 300 R404 500 R394 1k R401 300 R405 100 R386 12k R387 2,5k R395 100 T261 BF357 R383 470 R396 620 R402 1,8k
R397 820 R403 820 T258 BC308B R389 100 D238 BAX13 D239 BAX13 T262 BC308B R390 13k T259 BF324 R391 2,4k R398 430 C265 F 0,1µ/100 +15V
MAIN MAIN DLY'D MIX'D S301 R458 75 M13 BU303/7 /6 /5

BU208/3 5 4 BU208/2 BU207/3 /2 /1 BU211/3 BU211/4 BU210/3 BU210/2

+15V +5V +5V R289 2k R296 2k R308 1,5k R303 2k M10 C241 0,1µ 100 R315 100 T226 BF 357

T218 BSX 20 R290 2k T221 BSX20 T224 BF 357 R304 100 VERSTÄRKG. GAIN D212 BAX 13 R314 6,2k

R287 10k R291 56 +15V C339 0,1µ/100 R309 300 R311 500 X-EXT 1x AUTO NORM R316 2,4 k

-15V R305 1k R300 12 k R310 300 R312 100 C240 0,1µ/100 S 201 -15V

C238 0,1µ/100 T219 BC 238B T222 BC238B R301 2,5k R306 100 T225 BF 357

R283 560 R292 300 R293 300 R297 560 R298 510 R302 470 R307 620 M9 R313 1,8k

C236 470p/160 R284 1k T223 BF245 A 9654-202.97 R285 2k R288 1,2k R294 7,5k R295 56 R299 5,6k

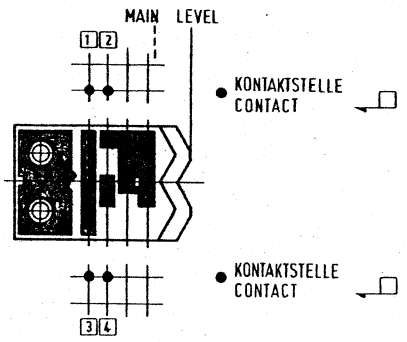
ARBEITSPUNKT-AUFHELLUNG OPERATING POINT-UNBLANKING

T220 BC 238B -15V T 22" BF 357 R319 100 R317 68

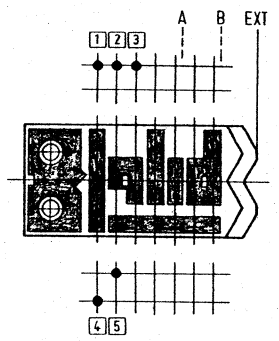
13b 7b T228 2N 2219 A R320 100 R318 51

+85V -15V +15V +18V +85V +15V

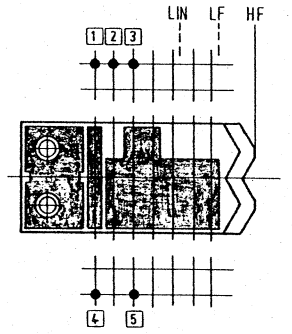
ST201/4 ST201/2 ST201/5 ST201/6 ST201/3 ST203 /1 /2 /3 /4 /5 /7 ST204/1 BU211/2 211/1 210/1 ST204 /2 /3



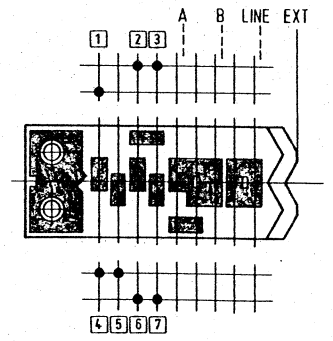
TRIGGERMODUS VERZÖGERUNGSKIPP
S 303 40003-037.00



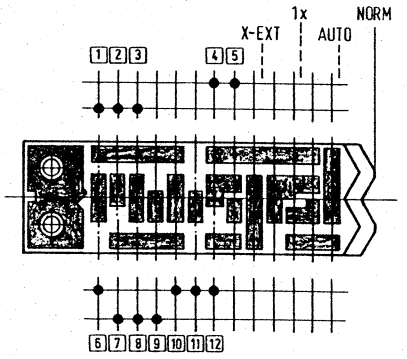
TRIGGERQUELLE VERZÖGERUNGSKIPP
S 302 40003-036.00



FILTER
S 203 40002-031.00



TRIGGERQUELLE HAUPTKIPP
S 202 40003-034.00



TRIGGERMODUS HAUPTKIPP
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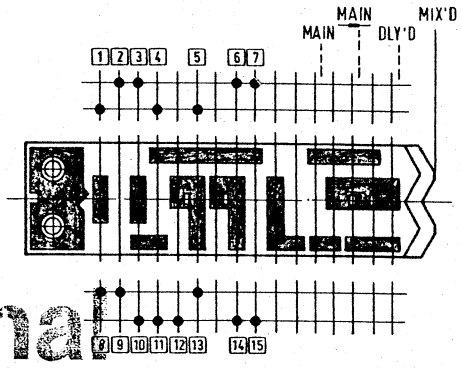

BETRIEBSART X-ABLENKUNG
S 301 40003-035.00

+15V C264 0,1µ/100 R399 1,5k BU303/4 /3 /2 /1 ST303/2 ST303/1 ST303/3 VERSTÄRKUNG GAIN M12

R392 2k R393 100 T260 BF 357 MAIN MAIN DLY'D MIX'D S301 R410 100k

ARBEITSPUNKT-AUFHELLUNG OPERATING POINT-UNBLANKING C263 0,1µ/100 R400 300 R404 500 -15V R394 1k

R386 12k R401 300 R405 100 +15V R382 56 R395 100 T261 BF 357 R387 2,5k

R383 470 R396 620 R402 1,8k R409 100 T263 BF 324 C266 0,47µ 63 R407 3,9k R408 10k -15V C267 0,1µ/100

T255 BC 238 B C262 0,1µ/100 M14

R383 300 C261 470p/100 9654-202.97 T257 BF 245 -15V R397 820 R403 820 T258 BC 308 C

R379 R389 100 D238 BAX 13 D239 BAX 13 R406 100 T262 BC 308 C

ARBEITSPUNKT-MIXED OPERATING POINT-MIXED R411 5k MAIN MAIN DLY'D MIX'D

R380 2k R381 1,2k R384 7,5k R385 56 -15V R390 13k T259 BF 324 R412 3,3k R413 10k R414 10k S301 -15V

T256 BC 238 B +15V MAIN MAIN DLY'D MIX'D R391 2,4k R398 430 +15V C265 0,1µ/100

C268 33p/63 MAIN MAIN DLY'D MIX'D R458 75 M13 S301

ST304/1 BU303/7 /6 /5 BU302/1 /2 /3

Original

ÄNDERUNGEN VORBEHALTEN !
ALTERATIONS RESERVED !

IND 02 GÜLTIG AB GERÄT NR.: 1191
GÜLTIG AB GERÄT NR.: 1001
FOR SETS FROM SERIAL No.: 1001

Teilebezeichnung - Title	Sach Nr. - Ref. No.			
GRUNDIG - Prüfungspunkt: Inspect. Item:				
Fertg.-Techn. angen.				
Oberfläche Surface	02	Änderung lt. Ä.P. 091761096	15.7.76	
Werkstoff-/Material:	01	Änderung lt. Ä.P. 091761055	29.3.76	
	Ind.	Änderung - Modification	Tag	Name
Nicht tolerierte Maße nach Abmaßtabelle 9665-100	Alle Rechte vorbehalten! Nichtgenehmigte Weitergabe, insbesondere Nachahmung oder auszugsweise Veröffentlichung des geistigen Eigentums wird zivil- und strafrechtlich verfolgt!			
Maßst.: Scale:	Paßmaße: Fit:	1975 Tag Name	Ersatz für:	Ind.
		Gez. 15.5.	Sach-Nr. 40003-906.01	Blätter 4 01
		Kontr. Gepr. 18.8. 12.9.80		Blatt 3 02
		Teilebezeichnung: Schaltplan		Arbeitspause Copy-No
GRUNDIG		Title:		